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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/849,299	05/20/2004	Tamaki Koide	13061-1	5595

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WASHINGTON, DC 20005

EXAMINER

KRAUSE, JUSTIN MITCHELL

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 11/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/849,299

Applicant(s)

KOIDE, TAMAKI

Examiner

Justin Krause

Art Unit

3682

**– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The language of claim 12 is inconsistent with the claimed language of claim 1, which requires a parallelogram, and claim 12 explicitly recites, "said pair of connecting link elements being non-parallel to each other", rendering the scope of the claim unclear because it is unknown whether the linkage is a parallelogram or not. Due to the indefiniteness, it is impossible to make a patentability determination based on the prior art at this time, since it is not clear whether or not the device in claim 12 is a parallelogram as required by claim 1.

***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heizmann (US Patent 5,022,281) in view of Marks' Standard Handbook for Engineers, 10<sup>th</sup> edition.

Heizmann discloses a shift lever apparatus comprising:

- a base member (23)
- a shift lever (1)
- at least one planar four bar linkage (21,15,16,1') supporting the shift lever

Heizmann discloses all of the claimed subject matter as described above including the base side link and lever side link being parallel to each other but does not disclose the connecting link elements to be parallel to each other.

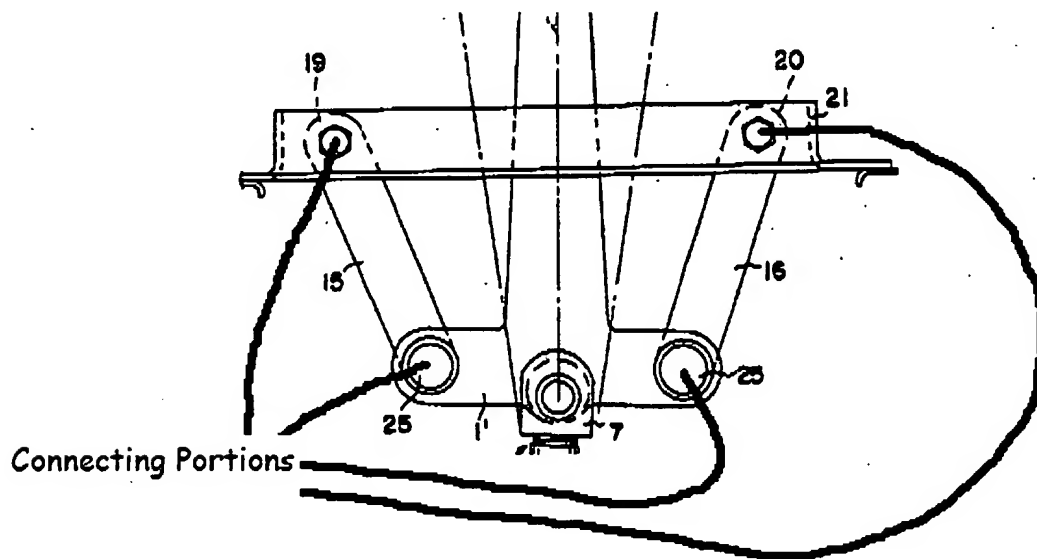
Marks' teaches that it is known to have a four bar linkage with 2 pairs of parallel links, forming a parallelogram four bar linkage, which has the advantage of being able to transmit pure translational motion relative to the base.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Heizmann and make the connecting links parallel to each other as taught by Marks', the motivation would have been to produce only translational motion with the four-bar linkage.

Regarding claim 2, the planar four bar linkage includes a base-side link element (21), a lever side link element (1') opposing the base-side link and a pair of connecting elements (15,16) connecting the lever-side and base-side link element, the shift lever is supported by the lever-side link, the base member supports the base-side link.

Regarding claim 3, inherently, due to the characteristics of a parallelogram four bar, the lever-side link is substantially parallelly shifted in the operational plane.

Regarding claim 4, four connecting portions connect the lever-side link element, the base-side link element and pair of connecting link elements to each other, the four connecting portions having parallel rotation axes.



Regarding claim 7, as best understood, the base link element is arranged along a rotational axis (22) and the operational plane is rotatable about the rotation axis in a direction perpendicular to the operational plane.

Regarding claim 8, the four bar linkage includes an operational plane in which the four link elements conduct a link motion in an operational plane, a base side link element is arranged along a rotation axis and the operational plane of the four bar

linkage is rotatable about the rotation axis in a plane perpendicular to the operational plane.

Regarding claim 10, the kinematics of the device are dictated by the location of the link end points. So long as the end points remain in the same position relative to each other, the connecting links may be any shape and not alter the function of the device in any way.

5. Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heizmann in view of Marks' and in further view of Kataumi (US Patent 6,148,686).

Heizmann as modified by Marks' discloses all of the claimed subject matter as described above but does not disclose a gate member including a shift lever path through which the shift lever extends, including two path portions extending parallel to each other, the gate member including an intermediate wall located between the two path portions having parallel opposite side surfaces.

Kataumi teaches a gate member (22) including a shift lever path (23) through which a shift lever (18) extends, the lever path including two path portions (see fig 4) extending parallel to each other, also including an intermediate wall located between the two path portions having opposite sides parallel to each other for the purpose of guiding the shifter by providing a slotted path to follow and providing indicating marks as to what gear is selected.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to add the gate member of Kataumi to the shift lever apparatus of

Heizmann as modified by Marks', the motivation would have been to provide the shifter guidance through a slotted pathway and provide indication of the selected gear.

Regarding claim 11, Kataumi discloses the base member having a plurality of concave surfaces (collectively 41) spaced from each other, and a cylinder portion (31) is provided to a link element, a pin (40) being slidably inserted into the cylinder portion and biased against the surface of the base member (by spring 39).

### ***Response to Arguments***

6. Applicant's arguments filed August 25, 2006 have been fully considered but they are not persuasive.

Applicant argues that the disclosure of a parallelogram is not apparent from the copy of Marks' provided.

The examiner finds disclosure of parallelogram linkages in the second sentence under the heading "Linkages", which recites, "The simplest form is four bar A, B, C, D, fastened together at their ends by cylindrical pins, and which are all movable in parallel planes." A four bar linkage movable in parallel planes is a parallelogram four bar linkage. As indicated in the rejection, a parallelogram four bar has the specific characteristic of producing pure translational motion. The examiner provides, as further evidence that parallelogram four bar linkages are well known within the art, figure 325 from the book Five Hundred and Seven Mechanical Movements, 18<sup>th</sup> edition by Henry T. Brown, 1868, disclosing 2 pairs of parallel links that operate in a translational movement.

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

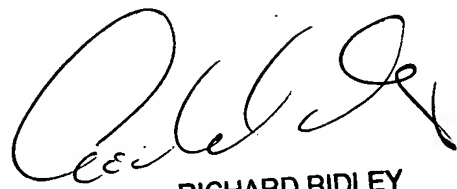
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Krause whose telephone number is 571-272-3012. The examiner can normally be reached on Monday - Friday, 7:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



RICHARD RIDLEY  
SUPERVISORY PATENT EXAMINER